**IT Applications, Unit 4**

**Ch 4, Goals of information systems, p 137-**

1. What is the role of a strategic plan?

A strategic plan is a process for identifying long term goals within an organisation.

1. Explain the purpose of a mission statement.

The mission statement is the basis for establishing a set of common goals that will help accomplish the organisation’s aims.

1. Distinguish between an organisation’s goals and its objectives.

An organisation’s goals are its long term goals that it is trying to achieve by taking a series of measures or objectives (short term goals)

Organisational goals and objectives often relate to improving the efficiency or effectiveness of operations.

**Improving efficiency**

1. How is efficiency measured?

Efficiency is measured in terms of cost, time and effort.

1. With an eg. illustrate how an organisational change will lead to improved efficiencies.

An example of an organisational change that will lead to improved efficiency is a sales representative who originally had to visit each store to promote products and announce promotions. To improve efficiency (by saving time), they can email a PDF to the store manager rather than having to visit in person.

**Improving effectiveness**

1. How is effectiveness defined?

Effectiveness is defined in terms of attractiveness, readability, completeness, clarity, accuracy, timeliness, communication of the message, relevance and usability.

**Improving decision-making**

1. What three factors are required for competent decision-making?

The three factors for competent decision making are information, communication and time. (Sufficient information communicated well and presented in a timely manner.)

**Types of information systems**

(You are not required to know for exam purposes the specific types of information systems).

Briefly, note the characteristics of each of the following 5 systems:

1. Transaction processing systems

TPS processes data generated by the day to day transactions of an organisation. These include billing systems, inventory control systems, accounts payable systems and order entry systems.

1. Office automation systems

OAS performs routine tasks such as printing, tracking, calculating and communicating with other departments and clients. E.g. word processing, spread sheets etc.

1. Management information systems

MIS generates timely and accurate information for managing and organisation. Manipulates data generated by the TPS to create reports.

1. Decision-support-systems

DSS allows users to manipulate data directly or incorporate it from external sources, and create models of ‘what if’ scenarios. Helps managers make non-routine decisions.

1. Expert systems

Designed to analyse data and produce a recommendation or decision. A knowledge base contains all the facts and rules used to make the decisions

**Problem-solving methodology relating to the analysis of ongoing information problems**

1. What is an information problem?

An information problem arises when an organisation’s goals are not being met.

**Information problems arise because of:**

1. Inefficient procedures
   1. What is meant by this term?

An inefficient procedure refers to when the entering or usage of data becomes inefficient – taking too long etc.

1. Failure to meet the needs of users
   1. Why do errors occur in systems?

Errors can occur in systems due to poor programming, failure to carry out the regular updating of data or varied and unexpected operating circumstances. Output could become inaccurate and be potentially damaging to the organisation. Effectiveness of data is compromised when errors occur.

1. Problems due to dependence on old technology

Systems are often put in place even when not all the problems have been solved, sometimes because they cannot be solved with the current available technology. For example, to monitor school attendance, monitors would mark students off on a roll and then send the data in to be entered into the system, but until they returned, there was no data.

* 1. What type of opportunities do developments in new technology present?

New technology provides new ways to provide or process data. For example, a single person can digitally make a full-length movie whereas in the past it would have taken hundreds of people. In organisations, they must regularly update their software and hardware to remain competitive with the industry.